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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,155	05/08/2006	Michael Bischoff	3827.131	2578
41288	7590	07/22/2008	EXAMINER	
PATENT CENTRAL LLC			DAVIS, OCTAVIA L	
Stephan A. Pendorf				
1401 Hollywood Boulevard			ART UNIT	
Hollywood, FL 33020			PAPER NUMBER	
			2855	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/529,155	Applicant(s) BISCHOFF ET AL.	
	Examiner OCTAVIA DAVIS	Art Unit 2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/24/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/24/08</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Acknowledgment is made of applicant's preliminary amendment filed 3/24/05.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 6, 8 – 10, 15, 16, 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Reimer et al (6,607,212).

Regarding claims 1, 2 and 18, Reimer et al disclose a collision deformation sensor using a source of wave energy for use in the crush zone of a vehicle comprising a sensor line 16 responsive to a mechanical deformation, a carrier body 62 receiving the sensor line and a measuring unit 10 cooperating with the sensor line, wherein the carrier body includes a deformation structure 60, 70 in engagement with the sensor line (See Col. 7, lines 35 – 37, Col. 8, lines 7 – 8, 30 – 34 and 43 - 49).

Regarding claim 6, the carrier body 62 has a bending resistance along the sensor line as a result of changes in the cross section as a result of breakthroughs as adaptation means (See Col. 8, lines 52 - 56).

Regarding claims 8 and 9, the carrier body 62 includes a bar 42 that is bendable under a transverse load running along the sensor line (See Col. 8, lines 18 – 22).

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Regarding claim 10, the deformation structure 60, 70 acts upon the sensor line upon exposure to local bending forces (See Col. 8, lines 43 – 59).

Regarding claim 15, the deformation structure 60, 70 includes two deformation bodies and that the sensor line runs between the deformation bodies which engage in each other upon impact (See Fig. 5).

Regarding claim 16, the sensor line includes an optical fiber (See Col. 8, lines 7 – 8).

Regarding claim 19, light is introduced into the optical fiber 16 of the sensor and that light is influenced by changes in the radius of bends that a signal change if the light signal is derived from the optical fiber is evaluated as an impact signal (See Col. 8, lines 7 – 9).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reimer et al (212) in view of Lord (5,502,301).

Regarding claim 7, Reimer et al disclose all of the limitations of these claims except that the carrier body includes an elastically deformable spacer with elasticity varying along the sensor line. However, Lord discloses a fiber optic sensors and control systems for an automobile occupant protection apparatus comprising a carrier 18 that has an elastically deformable member (cladding and core) that are included with a sensor line 20.

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Reimer et al according to the teachings of Lord for the purpose of, advantageously providing an improved control system for activating an occupant protective automotive apparatus through the use of force responsive sensors that employ flexible optical fibers (See Lord, Col. 1, lines 52 - 54).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3 – 5, 11 – 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reimer et al (212) in view of applicant's admitted prior art Bosch (DE10023588).

Regarding claims 3 – 5, 11 - 14 and 17, Reimer et al disclose all of the limitations of these claims except that the pressure force transmission is adaptable to the impact resistance of the surrounding vehicle part via adaptation means provided along the length of the sensor line, the impact signal in the case of a predetermined impact load remains constant independent of the point of impact, multiple sensor lines provided next to each other that include active segments in engagement with the deformation structure and blind segments not in engagement, the length of the segments varying for different sensor lines, the length of the active and blind segments for each row decreasing at a fixed ratio and the sensor lines including two conductors running side by side and continuously connected via a loop. However, Bosch discloses an intrusion sensor for the collection

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of a weight with a vehicle comprising pressure force transmission adaptable to impact via adaptation means 4 provided along a sensor line 3 (See Fig. 1), wherein the impact signal remains constant independent of the point of impact, multiple sensor lines 3 provided next to each other (See Fig. 4) including a plurality of segments S1 to SN that are different in lengths and in structure (See Fig. 4), the sensor line 3' including two conductor loops 3a - 3f that run side by side (See Fig. 4), the deformation structure including a number of force transmission elements distributed along the sensor line in uneven separation from each other (See Fig. 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Reimer et al according to the teachings of Bosch advantageously providing an intrusion sensor that makes a substantially faster time lags possible by measuring the beginning of an accident and intrusion speed fast and exact (See abstract).

Conclusion.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Holroyd et al (5,261,505) disclose a collision detector for a vehicle.

Schiller et al (5,826,903) disclose an air bag deployment trigger sensor with a sacrificial waveguide.

Taguchi et al (5,335,749) disclose a crash sensor.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Octavia Davis whose telephone number is 571-272-2176. The examiner can normally be reached on Mon through Thurs from 9 to 5. The examiner can also be reached on alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz, can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Edward Lefkowitz/

Supervisory Patent Examiner, Art Unit 2855

OD/2855

6/22/08